

Docket No. 2001-057-SFT

CLAIMS:

What is claimed is:

- 1 1. A method comprising:
2 validating data in a plurality of virtual replicas
3 of a storage device; and
4 identifying a last valid virtual replica from the
5 plurality of virtual replicas, wherein later virtual
6 replicas from the plurality of virtual replicas are
7 invalid.
- 1 2. The method of claim 1, wherein validating the data
2 includes scanning for viruses and the last valid virtual
3 replica is found to contain no viruses.
- 1 3. The method of claim 1, wherein the plurality of
2 virtual replicas represent contents of a database,
3 validating the data includes verifying that the contents
4 of the database are consistent, and the last valid
5 virtual replica contains consistent database contents.
- 1 4. The method of claim 1, further comprising:
2 copying contents of the last valid virtual replica
3 to the storage device, whereby the storage device is
4 restored to a valid state.
- 1 5. The method of claim 1, further comprising:
2 in response to identifying the last valid virtual
3 replica, producing an alert that an error has occurred.

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1 6. The method of claim 1, further comprising:

2 in response to identifying the last valid virtual
3 replica, halting execution of a host computer.

1 7. The method of claim 1, wherein the virtual replicas
2 are stored by a data management appliance.

1 8. The method of claim 8, further comprising:

2 in response to identifying the last valid virtual
3 replica, halting operation of the data management
4 appliance.

1 9. The method of claim 1, further comprising:

2 in response to identifying the last valid virtual
3 replica, halting operation of the storage device.

1 10. A computer program product in a computer readable
2 medium comprising functional descriptive material that,
3 when executed by a computer, enables the computer to
4 perform acts including:

5 validating data in a plurality of virtual replicas
6 of a storage device; and

7 identifying a last valid virtual replica from the
8 plurality of virtual replicas, wherein later virtual
9 replicas from the plurality of virtual replicas are
10 invalid.

1 11. The computer program product of claim 10, wherein

2 validating the data includes scanning for viruses and the

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3 last valid virtual replica is found to contain no
4 viruses.

1 12. The computer program product of claim 10, wherein
2 the plurality of virtual replicas represent contents of a
3 database, validating the data includes verifying that the
4 contents of the database are consistent, and the last
5 valid virtual replica contains consistent database
6 contents.

1 13. The computer program product of claim 10, comprising
2 addition functional descriptive material that, when
3 executed by the computer, enables the computer to perform
4 acts including:

5 copying contents of the last valid virtual replica
6 to the storage device, whereby the storage device is
7 restored to a valid state.

1 14. The computer program product of claim 10, comprising
2 addition functional descriptive material that, when
3 executed by the computer, enables the computer to perform
4 acts including:

5 in response to identifying the last valid virtual
6 replica, producing an alert that an error has occurred.

1 15. The computer program product of claim 10, comprising
2 addition functional descriptive material that, when
3 executed by the computer, enables the computer to perform
4 acts including:

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5 in response to identifying the last valid virtual
6 replica, halting execution of a host computer.

1 16. The computer program product of claim 10, wherein
2 the virtual replicas are stored by a data management
3 appliance.

1 17. The computer program product of claim 17, comprising
2 addition functional descriptive material that, when
3 executed by the computer, enables the computer to perform
4 acts including:

5 in response to identifying the last valid virtual
6 replica, halting operation of the data management
7 appliance.

1 18. The computer program product of claim 10, comprising
2 addition functional descriptive material that, when
3 executed by the computer, enables the computer to perform
4 acts including:

5 in response to identifying the last valid virtual
6 replica, halting operation of the storage device.

1 19. A data processing system comprising:
2 means for validating data in a plurality of virtual
3 replicas of a storage device; and
4 means for identifying a last valid virtual replica
5 from the plurality of virtual replicas, wherein later
6 virtual replicas from the plurality of virtual replicas
7 are invalid.

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1 20. The data processing system of claim 19, wherein
2 validating the data includes scanning for viruses and the
3 last valid virtual replica is found to contain no
4 viruses.

1 21. The data processing system of claim 19, wherein the
2 plurality of virtual replicas represent contents of a
3 database, validating the data includes verifying that the
4 contents of the database are consistent, and the last
5 valid virtual replica contains consistent database
6 contents.

1 22. The data processing system of claim 19, further
2 comprising:
3 means for copying contents of the last valid virtual
4 replica to the storage device, whereby the storage device
5 is restored to a valid state.

1 23. The data processing system of claim 19, further
2 comprising:
3 means responsive to identifying the last valid
4 virtual replica, for producing an alert that an error has
5 occurred.

1 24. The data processing system of claim 19, further
2 comprising:
3 means responsive to identifying the last valid
4 virtual replica, for halting execution of a host
5 computer.

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1 25. The data processing system of claim 19, wherein the
2 virtual replicas are stored by a data management
3 appliance.

1 26. The data processing system of claim 26, further
2 comprising:

3 means responsive to identifying the last valid
4 virtual replica, for halting operation of the data
5 management appliance.

1 27. The data processing system of claim 19, further
2 comprising:

3 means responsive to identifying the last valid
4 virtual replica, for halting operation of the storage
5 device.